
INFLUENCE OF PHYSICAL INFRASTRUCTURE AND WATER AND SANITATION SAFETY STANDARDS ON THE WELL-BEING OF PUBLIC SECONDARY SCHOOL COMMUNITIES IN WEST POKOT COUNTY, KENYA

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ABSTRACT

Purpose of the Study: The study examined the influence of physical infrastructure and water and sanitation safety standards on the well-being of public secondary school communities in West Pokot County, Kenya.

Statement of the Problem: Despite existing national school safety policies, public secondary schools in West Pokot continue to experience ageing infrastructure, overcrowding, inadequate maintenance, poor waste management, and unreliable water and sanitation facilities.

Methodology: Guided by the Health Belief Model, the study used a convergent parallel mixed-methods design, collecting data through questionnaires, interviews, observations, and documents, then applying statistical and thematic analyses for interpretation.

Findings: Physical infrastructure safety standards recorded a mean of 3.88, while water and sanitation standards recorded a mean of 4.16. Physical infrastructure had a strong positive relationship with school community well-being ($r = .741$, $p < .05$). Water and sanitation standards also had a positive significant relationship with well-being ($r = .342$, $p < .05$). Qualitative findings confirmed these results but highlighted implementation challenges.

Conclusion: Improved physical infrastructure and effective water and sanitation management enhance the well-being of school communities.

Recommendation: Education stakeholders should fund infrastructure, water, sanitation, waste management, and safety monitoring.

Keywords: *School safety standards; physical infrastructure; water and sanitation; school community well-being; public secondary schools; West Pokot County; Kenya.*

INTRODUCTION

School safety is increasingly recognized as a fundamental determinant of educational quality and the well-being of school communities because effective teaching and learning can only occur in environments that are physically safe, healthy, and psychologically supportive. Beyond preventing accidents and disasters, school safety encompasses safe physical infrastructure, adequate water and sanitation services, emergency preparedness, and institutional practices that protect learners, teachers, and other members of the school community from physical, environmental, and psychosocial risks. A growing body of empirical evidence demonstrates that safe school environments contribute to improved learner attendance, academic engagement, physical health, psychological well-being, and overall educational outcomes. Consequently, promoting safe and inclusive learning environments has become a global priority under Sustainable Development Goal 4, which seeks to ensure equitable, inclusive, and quality education for all (UNESCO, 2021).

Globally, governments and development partners have invested in strengthening school safety through improved physical infrastructure, water, sanitation and hygiene (WASH) programs, disaster risk reduction initiatives, and comprehensive school safety policies. The Comprehensive School Safety Framework identifies safe learning facilities, school disaster management, and risk reduction education as the three interrelated pillars necessary for protecting learners and ensuring continuity of education during emergencies (UNDRR, 2022). Empirical studies have shown that schools with safe classrooms, reliable water supply, adequate sanitation facilities, and effective maintenance systems report lower rates of absenteeism, reduced exposure to injuries and communicable diseases, and higher levels of learner well-being and educational participation (Barrett et al., 2019). These findings underscore the importance of integrating physical infrastructure and WASH interventions into broader strategies for improving educational quality and public health.

Despite these advances, substantial disparities in school safety persist, particularly in low- and middle-income countries. In many parts of Sub-Saharan Africa, rapid growth in school enrolment, ageing infrastructure, inadequate financial resources, weak maintenance systems, and limited institutional capacity continue to constrain the provision of safe learning environments. Empirical evidence indicates that inadequate classrooms, unsafe buildings, unreliable water supply, insufficient sanitation facilities, and poor waste management expose learners to preventable illnesses, injuries, absenteeism, and

psychosocial stress, thereby undermining educational outcomes and overall well-being. According to the World Health Organization and UNICEF (2023), inadequate WASH services remain a significant public health concern in schools and continue to affect learner health, school attendance, and participation in education across many developing countries.

In Kenya, the Government has established several policy and legal frameworks to strengthen school safety, including the Basic Education Act (2013), the Safety Standards Manual for Schools, and the National School Health Policy. These frameworks require schools to maintain structurally safe buildings, adequate water supply, appropriate sanitation facilities, effective waste management systems, and learning environments that support the holistic development of learners. However, recent studies continue to report considerable variation in the implementation of these standards across counties due to differences in infrastructure development, financial resources, environmental conditions, and institutional capacity. As a result, many public secondary schools continue to experience challenges related to inadequate physical infrastructure and water and sanitation services, particularly in rural and marginalized areas.

West Pokot County provides a particularly relevant context for examining these issues because of its unique geographical, environmental, and socio-economic characteristics. The county is characterized by rugged terrain, dispersed settlements, periodic drought, limited water resources, inadequate road infrastructure, and constrained public investment in educational facilities. These conditions pose significant challenges to the provision and maintenance of safe school infrastructure and adequate water and sanitation services. Consequently, many learners attend schools where inadequate classrooms, unreliable water supply, insufficient sanitation facilities, and poor environmental conditions may adversely affect their health, safety, school attendance, and overall well-being. Understanding how these safety standards influence the well-being of school communities is therefore essential for informing evidence-based interventions aimed at improving educational environments in marginalized settings.

School community well-being extends beyond the absence of illness or injury and encompasses the physical, psychological, social, and environmental conditions that enable learners, teachers, and other stakeholders to participate effectively in educational activities. Safe physical infrastructure minimizes exposure to accidents and structural hazards, while

adequate water and sanitation services reduce the transmission of communicable diseases, improve hygiene practices, enhance dignity, and promote positive learning experiences. Collectively, these safety standards create supportive school environments that foster learner participation, staff productivity, institutional resilience, and improved educational outcomes.

Although previous studies have examined school infrastructure, WASH, and learner health, these issues have frequently been investigated independently, with limited attention to their combined influence on the well-being of the wider school community. Furthermore, much of the available evidence has focused on national or regional assessments, providing limited context-specific evidence from geographically marginalized counties such as West Pokot. In addition, relatively few studies have integrated quantitative and qualitative evidence to explain how physical infrastructure safety standards and water and sanitation safety standards interact to influence school community well-being within resource-constrained educational settings.

This study addressed these gaps by examining the influence of physical infrastructure safety standards and water and sanitation safety standards on the well-being of public secondary school communities in West Pokot County, Kenya, using a convergent parallel mixed-methods design. By integrating statistical analysis with qualitative evidence from interviews, observations, and document analysis, the study provides context-specific evidence to inform policy implementation, institutional planning, and resource allocation aimed at strengthening safe, healthy, and inclusive learning environments in Kenya and other settings with comparable socio-economic and environmental characteristics.

LITERATURE REVIEW

Theoretical Framework

This study was guided by the Health Belief Model (HBM), originally developed by Rosenstock (1974) and subsequently refined by Becker (1974). The model proposes that individuals are more likely to adopt preventive actions when they perceive themselves to be susceptible to a health or safety threat, recognize the seriousness of its consequences, believe that preventive actions will produce meaningful benefits, perceive limited barriers to implementation, and receive cues that motivate action. Although the HBM was

originally developed to explain individual health-related behaviours, contemporary research has demonstrated its applicability in organizational and institutional settings where leaders' perceptions influence the adoption and implementation of health and safety policies and practices.

Within public secondary schools, the implementation of physical infrastructure and water and sanitation safety standards is largely influenced by institutional decision-makers, including principals, Boards of Management, Quality Assurance and Standards Officers, and education administrators. These stakeholders continually evaluate risks associated with unsafe school buildings, inadequate water supply, poor sanitation facilities, ineffective waste management systems, and deteriorating infrastructure. Their perceptions of the severity of these risks, the anticipated benefits of investing in school safety, and the barriers posed by financial, technical, and institutional constraints significantly influence decisions regarding the planning, implementation, and maintenance of school safety standards.

The Health Belief Model therefore provides an appropriate framework for explaining how institutional perceptions and decision-making shape preventive actions that enhance school safety. When school leaders recognize the potential consequences of inadequate infrastructure and poor water and sanitation services, they are more likely to prioritize investments in safe classrooms, reliable water supply systems, adequate sanitation facilities, effective waste management, and routine maintenance programs. These interventions reduce learners' exposure to injuries and communicable diseases, promote healthy hygiene practices, strengthen psychological security, and create learning environments that support the physical, social, and emotional well-being of learners, teachers, and the wider school community. Recent public health and school safety research further indicates that sustainable implementation of WASH programs depends not only on infrastructure provision but also on effective governance, institutional commitment, stakeholder participation, continuous monitoring, and adequate financing.

Accordingly, the Health Belief Model was considered appropriate for this study because it explains how the perceptions of institutional decision-makers regarding health and safety risks influence the implementation of physical infrastructure safety standards and water and sanitation safety standards, which constitute the independent variables of the study. Effective implementation of these standards contributes to improved school community

well-being, the dependent variable, by fostering safer, healthier, and more supportive learning environments for learners, teachers, and other members of the school community.

METHODOLOGY

This study adopted a convergent parallel mixed-methods research design, which enabled the concurrent collection and analysis of quantitative and qualitative data, followed by integration of the findings during interpretation. The design was appropriate because it combined the strengths of quantitative methods in establishing statistical relationships with qualitative methods that provided contextual explanations for the observed findings, thereby enhancing the credibility and comprehensiveness of the study through methodological triangulation (Creswell & Plano Clark, 2018).

The study was conducted in West Pokot County, Kenya, a predominantly rural and semi-arid county characterized by rugged terrain, dispersed settlements, recurrent droughts, infrastructural inadequacies, and socio-economic challenges that influence the implementation of school safety standards. These contextual characteristics made the county an appropriate setting for examining the relationship between school safety standards and the well-being of public secondary school communities.

The target population comprised 2,370 respondents drawn from stakeholders directly involved in school management and implementation of school safety standards. The respondents included principals, members of Boards of Management (BOM), County and Sub-County Directors of Education, Quality Assurance and Standards Officers, and National Government Constituencies Development Fund (NG-CDF) education committee members responsible for school infrastructure development and monitoring.

A sample of 586 respondents was determined using Yamane's (1967) sample size determination formula. Stratified random sampling was used to select principals and Board of Management members to ensure proportional representation, while purposive sampling was employed to select education officers, Quality Assurance and Standards Officers, and NG-CDF officials because of their direct involvement in school safety policy implementation and infrastructure management.

Data were collected using structured questionnaires, semi-structured interview guides, observation checklists, and document analysis checklists. The questionnaire employed a five-point Likert scale to generate quantitative data on respondents' perceptions of physical infrastructure safety standards, water and sanitation safety standards, and school community well-being. Interviews provided detailed information on the implementation of school safety standards and the challenges encountered. Observation checklists were used to verify the condition of school infrastructure, water sources, sanitation facilities, and other safety-related amenities, while document analysis focused on school safety manuals, inspection reports, maintenance records, Board of Management minutes, emergency preparedness records, and water treatment records to corroborate findings from other data sources.

Content validity of the instruments was established through expert review by university supervisors and specialists in educational management and monitoring and evaluation. Reliability of the questionnaire was assessed through a pilot study conducted in public secondary schools outside the study area but with similar characteristics. All constructs achieved Cronbach's alpha coefficients greater than 0.70, indicating acceptable internal consistency (Hair et al., 2022).

Quantitative data were analyzed using IBM SPSS Statistics Version 27. Descriptive statistics, including frequencies, percentages, means, and standard deviations, summarized respondents' perceptions of school safety standards and school community well-being. Inferential analysis involved Pearson Product-Moment correlation to determine the relationships between the study variables and multiple linear regression to establish the predictive influence of physical infrastructure safety standards and water and sanitation safety standards on school community well-being. Statistical significance was determined at the 95% confidence level ($p < .05$). Prior to regression analysis, the assumptions of normality, linearity, multicollinearity, and homoscedasticity were assessed to confirm the suitability of the regression model.

Qualitative data from interviews, observations, and document analysis were analyzed thematically through coding, categorization, and theme development. The qualitative findings were subsequently integrated with the quantitative results during interpretation to provide complementary explanations and strengthen the validity of the study through methodological triangulation.

The study obtained ethical approval from the relevant University Ethics Review Committee and the National Commission for Science, Technology and Innovation (NACOSTI). Research authorization was also obtained from the Ministry of Education and the County Director of Education, West Pokot County. Participation was voluntary, informed consent was obtained from all respondents, and confidentiality and anonymity were maintained throughout the study.

RESULTS AND DISCUSSION

This chapter presents and discusses the findings of the study on the influence of physical infrastructure safety standards and water and sanitation safety standards on the well-being of public secondary school communities in West Pokot County, Kenya. The findings are organized according to the study objectives and are presented through the integration of quantitative and qualitative evidence consistent with the convergent parallel mixed-methods design. Quantitative findings are presented using descriptive and inferential statistics, while qualitative findings from interviews, observations, and document analysis are used to explain and substantiate the statistical results. The discussion relates the findings to the Health Belief Model and relevant empirical literature to demonstrate how the implementation of school safety standards contributes to the physical, psychological, and social well-being of school communities.

Physical Infrastructure Safety Standards and School Community Well-being

The first objective of the study was to evaluate the influence of physical infrastructure safety standards on the well-being of public secondary school communities in West Pokot County. Respondents assessed seven indicators of physical infrastructure safety using a five-point Likert scale.

The findings indicate that physical infrastructure safety standards were implemented to a relatively high extent ($M = 3.88$). The highest mean score was recorded for prompt response to reported safety concerns ($M = 4.16$), suggesting that many schools had established mechanisms for addressing safety issues reported by learners and staff. High ratings were also recorded for the structural soundness of classrooms and dormitories ($M = 3.93$), effective school security measures ($M = 3.93$), and the availability of fire

extinguishers ($M = 3.91$). These findings suggest that many schools have invested in creating learning environments that promote the safety and well-being of learners and staff.

However, accessible emergency exits ($M = 3.67$) and regular building inspections ($M = 3.75$) recorded comparatively lower mean scores, indicating inconsistencies in the implementation of some safety requirements. The relatively higher standard deviations associated with these indicators suggest considerable variation across schools. While some institutions had fully implemented infrastructure safety measures, others continued to experience challenges related to routine maintenance, periodic inspections, and compliance with national school safety standards.

Multiple linear regression analysis further demonstrated that physical infrastructure safety standards had a statistically significant positive influence on school community well-being ($p < .05$). The positive regression coefficient indicates that improvements in physical infrastructure safety standards are associated with corresponding improvements in the physical, psychological, and social well-being of school communities. This finding confirms that investment in safe school infrastructure contributes significantly to healthier, safer, and more supportive learning environments. The results suggest that schools with better-maintained classrooms, structurally sound buildings, adequate emergency exits, secure compounds, and accessible learning facilities are more likely to promote the safety, confidence, and overall well-being of learners, teachers, and other members of the school community.

The quantitative findings were corroborated by qualitative evidence obtained through interviews, observations, and document analysis. A Quality Assurance and Standards Officer explained that the removal of window grills, installation of outward-opening doors, and construction of access ramps had significantly improved school safety. However, the officer noted that overcrowding and ageing infrastructure continued to expose learners to unnecessary risks. Similarly, one principal reported that increasing student enrolment beyond the carrying capacity of existing facilities had made full compliance with Ministry of Education safety standards increasingly difficult.

Observation findings confirmed that although most schools possessed essential safety facilities such as perimeter fencing, fire extinguishers, and structurally sound classroom buildings, several schools still exhibited blocked emergency exits, deteriorating classroom

blocks, inadequate accessibility for learners with disabilities, and poorly maintained infrastructure. Document analysis further revealed inconsistencies in infrastructure maintenance records and delayed implementation of recommendations arising from school safety inspection reports. The convergence of quantitative and qualitative evidence therefore demonstrates that although substantial progress has been made in implementing physical infrastructure safety standards, resource constraints, infrastructure deterioration, and increasing enrolment continue to hinder full compliance.

These findings support the Health Belief Model (Rosenstock, 1974; Becker, 1974), which suggests that decision-makers are more likely to implement preventive measures when they perceive safety risks as serious and recognize the benefits of protective action. Within schools, institutional leaders who appreciate the consequences of unsafe infrastructure are more likely to invest in safer buildings, improved maintenance, and effective risk management. Such interventions reduce learners' exposure to hazards while fostering secure learning environments that enhance confidence, participation, and overall well-being.

The findings are consistent with UNESCO (2021), which emphasizes that safe and well-maintained school infrastructure improves learner attendance, reduces injuries, and enhances educational outcomes. They also concur with Barrett et al. (2019), who reported that quality school infrastructure promotes learner engagement, health, and academic performance. Similarly, the Comprehensive School Safety Framework (UNDRR, 2022) identifies safe learning facilities as a fundamental pillar of resilient education systems. The present study extends previous evidence by demonstrating that physical infrastructure safety standards contribute not only to regulatory compliance but also to the physical, psychological, and social well-being of the entire school community within resource-constrained settings.

Overall, the findings demonstrate that effective implementation of physical infrastructure safety standards is fundamental to promoting school community well-being through enhanced learner protection, strengthened institutional preparedness, improved perceptions of safety, and the creation of environments that support effective teaching and learning.

Water and Sanitation Safety Standards and School Community Well-being

The second objective of the study was to determine the influence of water and sanitation safety standards on the well-being of public secondary school communities in West Pokot County.

The findings revealed that water and sanitation safety standards were implemented to a high extent ($M = 4.16$). Water treatment practices ($M = 4.52$) and reliable water supply ($M = 4.47$) received the highest ratings, indicating that many schools had prioritized the provision of safe drinking water for learners and staff. Water quality monitoring systems and the availability of adequate water points also received favourable ratings. However, waste management systems and drainage facilities recorded comparatively lower mean scores, suggesting that sanitation management remains an area requiring continuous improvement.

Regression analysis further revealed that water and sanitation safety standards had a statistically significant positive influence on school community well-being ($p < .05$). The positive regression coefficient indicates that improvements in access to safe drinking water, adequate sanitation facilities, effective waste management, and appropriate hygiene practices contribute to healthier, safer, and more supportive school environments. Although the effect was positive, its contribution was comparatively lower than that of physical infrastructure safety standards, suggesting that while both dimensions are essential for promoting school community well-being, improvements in physical infrastructure have a relatively stronger influence on overall well-being. These findings underscore the need for schools and education stakeholders to invest simultaneously in safe infrastructure and sustainable water and sanitation services to achieve comprehensive school safety and improved educational outcomes.

Qualitative findings complemented the quantitative evidence. School administrators reported that partnerships with organizations such as Impact Water had significantly improved access to water purification technologies, boreholes, and water storage facilities. Respondents further indicated that donor-supported initiatives had enabled several schools to access clean piped water while simultaneously benefiting neighbouring communities. Nevertheless, concerns were raised regarding the sustainability of these interventions because many schools remained dependent on external partners for maintenance and operation of water infrastructure.

Observation findings confirmed that most schools had functional water sources and sanitation facilities. However, several institutions exhibited poorly maintained drainage systems, inadequate waste disposal, and inconsistent sanitation facility maintenance. Document analysis similarly revealed variations in water quality monitoring records, maintenance schedules, and sanitation management documentation across schools. These findings indicate that although substantial progress has been achieved in improving school WASH services, long-term sustainability, maintenance, and institutional financing remain important challenges.

The findings support the Health Belief Model by demonstrating that reliable access to safe drinking water and adequate sanitation reduces perceived health risks while encouraging positive hygiene practices among learners and staff. Institutional commitment to maintaining functional WASH facilities therefore contributes to healthier school environments that enhance both physical health and psychosocial well-being.

The findings are consistent with the World Health Organization and UNICEF (2023), which emphasize that access to safe drinking water, improved sanitation, and effective hygiene practices reduces communicable diseases, improves learner attendance, and promotes healthier educational environments. Similarly, UNESCO (2021) identifies WASH services as essential components of safe, inclusive, and supportive schools that facilitate learner participation and educational achievement. The present study extends this evidence by demonstrating that effective implementation of water and sanitation safety standards contributes not only to improved health outcomes but also to learner dignity, psychological comfort, positive social relationships, and the overall well-being of school communities in resource-constrained settings.

Overall, the findings demonstrate that effective implementation of water and sanitation safety standards plays a significant role in creating healthy, safe, and supportive learning environments that enhance the well-being of public secondary school communities in West Pokot County.

Multiple Regression Analysis of Physical Infrastructure Safety Standards and Water and Sanitation Safety Standards on School Community Well-being

To determine the combined influence of physical infrastructure safety standards and water and sanitation safety standards on the well-being of public secondary school communities, multiple linear regression analysis was conducted. Before the analysis, the assumptions of multiple regression, including normality, linearity, homoscedasticity, and absence of multicollinearity, were assessed and found to have been satisfied, confirming the suitability of the data for regression analysis.

Model Summary

The regression model indicated that physical infrastructure safety standards and water and sanitation safety standards jointly explained a substantial proportion of the variation in school community well-being. This demonstrates that the implementation of school safety standards plays an important role in promoting the physical, psychological, and social well-being of learners, teachers, and other members of the school community.

Analysis of Variance (ANOVA)

The overall regression model was statistically significant ($p < .05$), indicating that physical infrastructure safety standards and water and sanitation safety standards jointly predicted school community well-being. The findings demonstrate that the combined contribution of the two safety dimensions provides a meaningful explanation of variations in well-being among public secondary school communities.

Regression Coefficients

The regression coefficients showed that physical infrastructure safety standards had a positive and statistically significant influence on school community well-being. This finding suggests that improvements in the structural condition of school facilities, classroom safety, accessibility, maintenance, and security contribute substantially to creating safe and supportive learning environments.

Water and sanitation safety standards also had a positive and statistically significant influence on school community well-being. Reliable access to safe water, adequate sanitation facilities, effective waste management, and appropriate hygiene practices were associated with healthier school environments, reduced health risks, and improved learner participation and well-being.

The comparison of standardized regression coefficients indicated that physical infrastructure safety standards had a stronger influence on school community well-being than water and sanitation safety standards. This suggests that while both dimensions are essential for safe schools, improvements in physical infrastructure provide the greatest contribution to enhancing the overall well-being of school communities.

Overall, the regression findings corroborate the descriptive statistics and qualitative evidence presented in Sections 4.1 and 4.2. The integration of questionnaire responses with interview findings, observations, and document analysis demonstrates that schools with better implementation of physical infrastructure and water and sanitation safety standards provide safer, healthier, and more inclusive learning environments. These findings are consistent with the Health Belief Model, which emphasizes that reducing environmental and health-related risks through preventive measures promotes protective behaviours and enhances individual and community well-being. The findings also support the Comprehensive School Safety Framework, which identifies safe learning facilities and healthy school environments as fundamental components of resilient education systems.

CONCLUSION

This study examined the influence of physical infrastructure safety standards and water and sanitation safety standards on the well-being of public secondary school communities in West Pokot County, Kenya, using a convergent parallel mixed-methods research design. By integrating quantitative and qualitative evidence, the study provided a comprehensive understanding of how school safety standards contribute to the creation of safe, healthy, inclusive, and supportive learning environments.

The findings revealed that public secondary schools in West Pokot County had generally achieved a relatively high level of implementation of physical infrastructure safety standards and water and sanitation safety standards, although variations existed across schools because of differences in infrastructure, resource availability, and institutional capacity. The study established that physical infrastructure safety standards exerted a stronger positive influence on school community well-being than water and sanitation safety standards. This finding underscores the importance of structurally safe classrooms, adequate learning facilities, secure school environments, and routine infrastructure

maintenance in promoting the physical, psychological, and social well-being of learners and school personnel.

The study further established that water and sanitation safety standards significantly contributed to school community well-being by improving hygiene practices, reducing exposure to communicable diseases, enhancing learner dignity, and creating healthier learning environments. The integration of quantitative findings with evidence from interviews, observations, and document analysis demonstrated that effective implementation of school safety standards depends not only on compliance with national policies but also on adequate financial resources, continuous infrastructure maintenance, reliable water and sanitation services, regular monitoring and evaluation, and active participation of all education stakeholders.

Since the study was conducted in public secondary schools within West Pokot County, the findings should be interpreted within this geographical context. Nevertheless, they provide valuable evidence for informing school safety policy, planning, and implementation in counties with similar socio-economic, environmental, and infrastructural characteristics. Overall, the study concludes that sustained investment in physical infrastructure and water and sanitation safety standards is fundamental to creating safe, resilient, health-promoting, and inclusive school environments that enhance the well-being of public secondary school communities.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations are proposed:

1. **Ministry of Education:** Strengthen implementation of the *Safety Standards Manual for Schools* through regular compliance inspections, periodic school safety audits, continuous monitoring and evaluation, and increased budgetary allocation for school infrastructure development and maintenance, particularly in marginalized and resource-constrained counties.
2. **County Governments and Development Partners:** Prioritize investment in sustainable water supply systems, improved sanitation facilities, drainage infrastructure, solid waste management systems, and routine maintenance

programs to ensure schools provide safe, healthy, and resilient learning environments.

3. **Boards of Management and School Principals:** Institutionalize comprehensive school safety management systems through periodic infrastructure inspections, preventive maintenance schedules, timely repair of damaged facilities, regular risk assessments, and implementation of recommendations arising from school safety audits.
4. **Quality Assurance and Standards Officers:** Enhance monitoring and evaluation of school safety standards through regular compliance assessments, technical support, capacity-building programs, and systematic follow-up of recommendations to promote continuous improvement in school safety practices.
5. **School Communities:** Encourage active participation of teachers, learners, parents, and local communities in identifying safety risks, maintaining school facilities, promoting hygiene practices, and supporting school safety interventions to strengthen ownership, accountability, and sustainability.
6. **Future Policy and Research:** The Ministry of Education and other education stakeholders should establish sustainable financing mechanisms to support long-term maintenance of school infrastructure and water and sanitation facilities. Future studies should employ longitudinal and comparative research designs involving schools from different counties to generate broader evidence on the implementation of school safety standards across diverse educational contexts.

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